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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,440	03/15/2001	Gareth Hougham		4926

7590 01/15/2003
Thomas A. Beck
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New Milford, CT 06776

EXAMINER

FONTAINE, MONICA A

ART UNIT PAPER NUMBER

1732

DATE MAILED: 01/15/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,440

Applicant(s)

HOUGHAM, GARETH

Examiner

Monica A Fontaine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 04 November 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to the Amendment filed on 4 November 2002.

The Applicants have overcome the following objections:

- A. Claim Informality (Claim 7)

The following objections still stand as set forth below:

- A. Improper labeling (Drawings)
- B. Lack of definition and punctuation (Specification)
- C. Claim Informality (Claim 2)

The Applicants have overcome the following rejections:

- A. 35 USC 112 (1st) (Claim 6)
- B. 35 USC 112 (2nd) (Claims 3, 4, 6-10)
- C. 35 USC 103 in view of the instant specification, in further view of Kumar et al., in further view of Kim et al. (Claim 4)
- D. 35 USC 103 in view of the instant specification, in further view of Kumar et al., in further view of Kim et al., in further view of Sangokoya (Claim 9)

The following rejections still stand as set forth below:

- A. 35 USC 112 (1st) (Claim 7)
- B. 35 USC 103 in view of the instant specification, in further view of Kumar et al. (Claims 1, 2, 5-8, 10)
- C. 35 USC 103 in view of the instant specification, in further view of Kumar et al., in further view of Kim et al. (Claims 3 and 4)

D. 35 USC 103 in view of the instant specification, in further view of Kumar et al., in further view of Kim et al., in further view of Sangokoya

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 4 November 2002 have not been approved because Figures 1 and 2 continue to lack a "Prior Art" label, as required in Paper No. 6. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: The specification was not amended to correct the informalities defined in Paper No. 6. The acronym "CTE" is still not defined, and there is also still a lack of punctuation at the conclusion of the specification.

Appropriate correction is required.

Claim Objections

Claim 2 is objected to because of the following informalities: The informality noted in Paper No. 6 of a lack of punctuation at the end of the claim has not been corrected. Appropriate correction is required.

Applicant's amendment of Claim 7 is acknowledged.

Claim Rejections - 35 USC § 112

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Applicant's amendment of Claim 6 is acknowledged.

Claim 7 is again rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The acronym "TFT" is undefined in the application and a definition is not readily apparent. Correction is required, but applicant is cautioned against insertion of new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Applicant's amendment of Claims 3, 4, 6-10 is acknowledged.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 5-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the instant specification, in view of Kumar et al. (U.S. Patent 5,512,131) as set forth in the office action in Paper No. 6.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the instant specification, in view of Kumar et al., in further view of Kim et al. (U.S. Patent 6,355,198) as set forth in the office action in Paper No. 6.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the instant specification, in view of Kumar et al., in further view of Kim et al., in further view of Sangokoya (U.S. Patent 5,731,253), as set forth in the office action in Paper No. 6.

Response to Arguments

Applicant's arguments regarding Claims 1-10 filed 4 November 2002 have been fully considered but they are not persuasive.

Applicant contends that the Kumar et al., hereafter "Kumar," document (U.S. Patent 5,512,131) does not suggest the claimed invention when combined with the instant specification because it does not show the improved article formed by applicant based upon the manner in which it is formed: "curing...at or near the intended final use temperature, followed by a higher temperature step to harden." This argument is not deemed persuasive because Kumar specifically gives an example in which an article is "cured at room temperature...followed by additional curing at 65°C...until the polymer was rigid." (Column 18, lines 62-65). The examiner notes that a reasonable room temperature would be 21°C.

Applicant contends that the Kumar document does not suggest the claimed invention when combined with the instant specification because it does not show a stamp possessing a desired pattern to be printed. This argument is not deemed persuasive because Kumar

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specifically gives an example in which a stamp having a pattern such as a photoresist pattern or a microscopy grid is produced by molding (Column 18, lines 48-55).

Applicant contends that the Kumar document does not suggest the claimed invention when combined with the instant specification because it does not show a stamp that is robust enough to allow handling during printing and also allows minimal distortion from the stresses incurred during printing contact. This argument is not deemed persuasive because Kumar specifically teaches a stamp that allows handling during printing but does not deform when pressed against a surface (Column 7, lines 31-41; Column 8, lines 16-29).

Applicant contends that the Kumar document does not suggest the claimed invention when combined with the instant specification because it does not show a cure period of "some period." This argument is not deemed persuasive or relevant because a cure time of some period is clearly shown in the Kumar reference in Column 18, lines 63-65.

Applicant contends that the Kim et al., hereafter "Kim," document (U.S. Patent 6,355,198) does not suggest the claimed invention when combined with the instant specification and Kumar because Kim and Kumar are of two totally different disciplines. This argument is not deemed persuasive because each reference contains information related to microstamping and the formation of stamps therefor.

Applicant contends that the Sangokoya document (U.S. Patent 5,731,253) does not suggest the claimed invention when combined with the instant specification, Kumar, and Kim because Sangokoya, Kim, and Kumar are of totally different disciplines. This argument is not deemed persuasive because although the Sangokoya reference does not relate specifically to microstamping and the formation of stamps therefore, it relates directly to specific compounds of

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siloxane, a claimed material shown to be a known material used in the art in view of both Kim and Kumar.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following articles have been cited to further show the state of the art with regard to microprinting in general:

Michel, B. et al. "Siloxane Polymers for High-Resolution, High-Accuracy Soft Lithography." 2000. *Macromolecules*. 33, No. 8. Pages 3042-3049.

Braun, Hans-G., Evelyn Meyer. "Microprinting- A new approach to study competitive structure formation on surfaces." 1999. *Micromol. Rapid Commun*. 20, No. 6. Pages 325-327.

Pompe, T., A. Fery, and S. Merminghaus. "Submicron Contact Printing on Silicon Using Stamp Pads." 1999. *Langmuir*. 15, No. 7. Pages 2398-2401.

The following patents have been cited to further show the state of the art with regard to microprinting and materials useable therefore in general:

U.S. Patent 5,731,253 to Sangokoya

U.S. Patent 4,254,069 to Dominguez

U.S. Patent 4,528,354 to McDougal

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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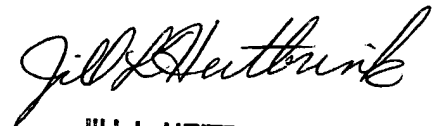
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 703-305-7239. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan Silbaugh can be reached on 703-308-3829. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9310 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

maf
January 9, 2003



JILL L. HEITBRINK
PRIMARY EXAMINER
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1/9/03